

IN THE CLAIMS:

Please amend claims 5 and 7 as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1- 4 (Canceled).

Claim 5 (Currently Amended): A method of producing a printed circuit board, comprising:

a first step of disposing optical fibers on fixing jigs at regular intervals, wherein the fixing jigs are arranged at end portions of the optical fibers;

a second step of dipping the fixing jigs including the optical fibers disposed on surfaces thereof in a vessel containing an epoxy resin to embed the optical fibers in the epoxy resin;

a third step of separating the fixing jigs from the optical fibers embedded in the epoxy resin, ~~wherein the fixing jigs inside the epoxy resin are removed from the epoxy resin;~~

a fourth step of curing the epoxy resin including the optical fibers embedded therein to produce a semicured prepreg;

a fifth step of forming copper clads on both sides of the semicured prepreg while aligning the copper clads with the semicured prepreg; and

a sixth step of pressing the semicured prepreg and copper clads aligned with each other at predetermined temperature and pressure.

Claim 6 (Original): The method as set forth in claim 5, wherein the fixing jigs including the optical fibers disposed at regular intervals on surfaces thereof are subjected to a rolling process to embed the optical fibers in the epoxy resin in the second step.

Claim 7 (Currently Amended): A method of producing a printed circuit board, comprising:

a first step of mounting fixing jigs, including optical fibers disposed at regular intervals thereon, on a copper clad, wherein the fixing jigs are arranged at end portions of the optical fibers;

a second step of conducting a rolling process for the fixing jigs, including optical fibers disposed at regular intervals thereon and mounted on the copper clad, to coat the optical fibers with an epoxy resin;

a third step of separating the fixing jigs from the optical fibers, ~~wherein the fixing jigs inside the epoxy resin are removed from the epoxy resin;~~ and

a fourth step of semidrying the epoxy resin coated on the optical fibers to form a semicured prepreg on the copper clad.

Claim 8 (Previously Presented): A method of producing a printed circuit board, comprising:

a first step of forming a waveguide layer, including waveguides for a large area therein, to transmit an optical signal therethrough;

a second step of dipping the waveguide layer into an epoxy resin to form a semicured prepreg having a structure that the waveguide layer is embedded in the epoxy resin;

a third step of coating aligning members on upper and lower sides of the semicured prepreg;

a fourth step of placing copper clads on the upper and lower sides of the aligning members while aligning the copper clads with the semicured prepreg using the aligning members interposed between the semicured prepreg and the copper clads; and

a fifth step of pressing the semicured prepreg and copper clads aligned with each other at predetermined temperature and pressure.

Claim 9 (Previously Presented): A method of producing a printed circuit board, comprising:

a first step of forming a waveguide layer, including waveguides for a large area therein, to transmit an optical signal therethrough;

a second step of conducting a first rolling process for a first side of the waveguide layer to coat the first side of the waveguide layer with an epoxy resin;

a third step of coating an aligning member on the first side of the waveguide layer coated with the epoxy resin in such a way that the aligning member is positioned on the epoxy resin;

a fourth step of placing a copper clad on the aligning member while aligning the copper clad with the waveguide layer using the aligning member interposed between the epoxy resin and the copper clad;

a fifth step of pressing the waveguide layer and copper clad aligned with each other at predetermined temperature and pressure; and

a sixth step of conducting a second rolling process for a second side of the waveguide layer, on which the copper clad is not formed, to coat the second side of the waveguide layer with the epoxy resin.